

REMARKS

Claims 10-29 remain in this application.

By this amendment, the following limitations have been added to claim 10, that the fluid conduit “has a substantially constant width” and that a swirl about the axis is produced “without a constriction of this fluid stream”.

In support for these amendments, it is pointed out that the feature that the fluid conduit “has a substantially constant width” is clearly shown in the drawing figures. And further, paragraph 14 of the specification states in part, “An especially preferred embodiment of the valve assembly of the invention is distinguished in that both conduit portions in cross section have at least approximately the same radius.”

Further on, paragraph 39 the specification states, “Since a detachment of the fuel stream in the transition region between the two conduit portions 34 and 36, and especially in the second conduit portion 36, is prevented, a constriction of the fluid stream with a correspondingly reduced hydraulic diameter, which would lead to increased throttling, is also averted.”

Clearly, according to claim 10 as presently amended, applicants’ device is different from the device of Lindberg in that in Lindberg there are three constrictions of the conduit. The first constriction within Lindberg is at throat 49 and adjustment screw 51. The second is at the beginning of inner surface 21, just inside of the threads which connect this element to element 71. And the third is close to the outlet end of inner surface 21 as it narrows, just before the fluid encounters grooves 84.

In view of all of these constrictions within Lindberg, it is clear that Lindberg does not teach a device which anticipates the structure as now recited in claim 10.

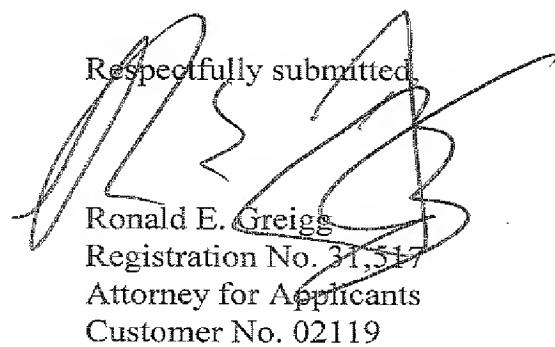
And further, again in view of all of these teachings of constrictions in Lindberg it is also clear that Lindberg does not provide any teachings which make the current structure as recited in claim 10 obvious under the meaning of 35 USC 103.

In a related Japanese application, the Japanese examiner cited WO 00/37794, which is equivalent to US 6,382,185, Mennicken et al. The US examiner may wish to consider this reference also. But it is pointed out that the structure as recited in present claim 10 is different from that of Mennicken et al. in that Mennicken et al. is disclosed to be an inlet for a control piston of an injection valve, thus Mennicken et al. is from a different art. Also, within the structure as taught by Mennicken et al. there is no inlet valve as recited in applicants' claims. Mennicken et al. do show a valve element 40, but this valve element is an on-off valve which controls the pressure within chamber 20 by allowing an appropriate amount of fuel to escape from chamber 20. Effectively, valve element 40 of Mennicken et al. is an outlet valve. Thus, the reference to Mennicken et al. does not give any teachings which anticipate or make obvious the structure as now recited in claim 10.

As further differences, it is pointed out that in Mennicken et al. the throttle bore 10 is a clear constriction of the fluid stream, and this throttle bore 10 clearly precludes the structure of Mennicken et al. from having a substantially constant width.

Appl. No. 10/581,415
Amtd. dated January 27, 2009
Reply to Office action of October 31, 2008

For all of the above reasons, singly and in combination with each other, entry of this amendment and allowance of the claims are courteously solicited.

Respectfully submitted,

Ronald E. Greigg
Registration No. 31,517
Attorney for Applicants
Customer No. 02119

GREIGG & GREIGG, P.L.L.C.
1423 Powhatan Street
Suite One
Alexandria, VA 22314

Tel. (703) 838-5500
Fax. (703) 838-5554

REG/SLS/ncr

J:\Bosch\R3059\13\Reply to 10-31-08 OA.wpd